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| 10/554,103  | 10/21/2005  | Haruo Ohta           | 2005_1652A          | 6590             |
| 52349 7590 11/05/2008<br>WENDEROTH, LIND & PONACK L.L.P.<br>2033 K. STREET, NW<br>SUITE 800<br>WASHINGTON, DC 20006 |             |                      |                     |                  |
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| BUI, HUNG S   |             |                      |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/554,103

**Applicant(s)**

OHTA ET AL.

**Examiner**

HUNG S. BUI

**Art Unit**

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-40 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 29-40 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 21 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 29, 32, 34 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klatt et al. [US 6,097,605] in view of Liu et al. [US 6,915,956] and Matsumoto et al. [US 7,110,262].

**Regarding claim 29.** Klatt et al. disclose a semiconductor memory device (figures 2a-2b) comprising:

- a plurality of semiconductor memory cards (3, 4, figures 2a-2b) arranged in a rectangular shape, each semiconductor memory card having first edge portions disposed along the lengths of two parallel edges of the semiconductor memory card (figures 2a-2b);

- a housing (5, figures 2a-2b, column 4, line 44) for the plurality of semiconductor memory cards, the housing having:

- a substantially rectangular shape (figures 2a-2b) so as to have a smaller axis (cross line in a width direction of the device) and a larger axis (cross line in a length direction of the device, figures 2a, 2b), and

- second edge portions disposed along the lengths of two parallel edges of the housing, two of the plurality of semiconductor memory cards being disposed flat and

adjacent to each other along the smaller axis of the housing, and so that one of the first edge portions of each of the two semiconductor memory cards lies in a respective one of the second edge portions of the housing; and

- a connecting section (7, figures 2a-2b) in the housing for connecting to a host device.

Klatt et al. disclose the instant claimed invention except for the housing including a controller to control signal input/output therefrom the memory cards and the thickness of the first and second edge portions being smaller than a thickness of a central portion of the housing.

Liu et al. disclose a housing memory device (figures 4-6) having a first edge portion and a second edge portion disposed along the lengths of two parallel edges of the housing memory device, wherein the thickness of the first and second edge portions are thinner than the thickness of the central portion of the housing memory device (figures 4-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the housing shape design of Liu et al., in Klatt et al., for the purpose of enabling grasp the memory device to the users.

Matsumoto et al. disclose a memory device (10, figure 2) including a plurality of semiconductor cards (27, figure 7) and a controller (12, figure 2, column 4, lines 66-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the controller in the memory card of Klatt et al., as modified,

as suggested by Matsumoto et al., for the purpose of controlling communication signal therefrom the memory device.

**Regarding claim 32**, Klatt et al., as modified, disclose the memory device being a PCMCIA (column 4, line 48).

Klatt et al., as modified, disclose the instant claimed invention except for the specific thickness, length, width of the memory device.

Matsumoto et al. disclose the semiconductor memory card having a width approximately 24 mm; length approximately 32 mm; and thickness approximately 2.1 mm (column 4, lines 35-60).

The specific length, width and thickness of the semiconductor memory device would have been an obvious design consideration based on the specific type of the memory device intended to be made by the manufacture.

**Regarding claim 34**, Klatt et al., as modified, disclose wherein the housing includes a restricting mechanism (16, figure 2a-2b) for restricting removal of the plurality of semiconductor memory cards from the housing.

**Regarding claim 37**, Klatt et al., as modified, disclose wherein the plurality of semiconductor memory cards is constituted by four semiconductor memory cards, and wherein another two semiconductor memory cards are disposed flat, adjacent to each other along the smaller axis of the housing, and adjacent to the two semiconductor memory cards along the larger axis of the housing (figures 2a-2b).

3. Claims 30, 33, 35, 38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klatt et al., as modified, as applied to claims 29, 32, 34, 37 and 39 above, and further in view of Hsueh et al. [US 7,264,992].

**Regarding claims 30, 33, 35, 38 and 40**, Klatt et al., as modified, disclose the instant claimed invention except for the housing comprising a switch means whose operation state is operable from outside of the housing, wherein the switch having a state which indicates whether write operations to the plurality of memory cards; and monitor for detecting the state of the switch.

Hsueh et al. disclose a memory card (figure 6a) including at least one switch (65, figure 6a) being mounted thereon the side of the memory card, for detecting the states of the switch to control "read/write" operation to the memory card (column 9, lines 22-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use switch design of Hsueh et al. in the memory device of Klatt et al., as modified, for the purpose of providing a write protection to the memory device.

4. Claims 31, 36 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klatt et al., as modified, as applied to claim 29 above, and further in view of Asom et al. [US 7,170,754].

**Regarding claims 31, 36 and 39**, Klatt et al., as modified, disclose wherein a surface of each of the plurality of semiconductor memory cards is recessed to form each of the first end portions, so that each of the first end portions has a step-like shape, and each

of the plurality of semiconductor memory cards is provided with a terminal section (10, figure 2a) on the surface, wherein the housing includes a circuit substrate (2, figure 2b) having a first surface and a second surface opposite to the first surface, wherein the plurality of semiconductor memory cards are disposed on the first surface of the circuit substrate with the terminal sections facing away from the circuit substrate.

Klatt et al., as modified, disclose the controller being disposed on the second surface of the circuit substrate.

Asom et al. disclose a memory card (figure 8) including a circuit substrate (41, figure 8), wherein the circuit substrate has a plurality of components being mounted thereon both side surfaces of the circuit substrate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to mount a control means on another side surface of the circuit substrate by an opposite surface to mount a plurality of memory cards of Klatt et al., as modified, as suggested by Asom et al., for the purpose of providing additional space to mount the memory cards in the memory housing device.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 29-40 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung S. Bui whose telephone number is (571) 272-2102. The examiner can normally be reached on Monday-Friday 8:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on 571-272-2800 ext. 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hung S. Bui/  
Primary Examiner, Art Unit 2841  
10/31/2008